Introduction 1

The K7T266 Pro (MS-6380) ATX mainboard is a high-performance computer mainboard based on VIA® **Apollo KT266** chipset and designed for the AMD® Athlon™ or Duron™ (PGA) processor for inexpensive business/ personal desktop markets.

The **Apollo KT266** chipset consists of the VT8366 Super Northbridge and the VT8233 Southbridge. VT8366 provides a PC1600/2100 DDR (Double Data Rate) solution with support for 200/266MHz Front Side Bus. By using PC2100 DDR technology, the VT8366 enables 2.1GB/second peak bandwidth between system memory and Northbridge. The chipset doubles the communication bandwidth between the North and South Bridge to 266MB/sec through a high-speed V-Link bus. With AGP 4X interface, VT8366 boosts system performance for 3D graphics and video program.

The VT8233 Southbridge integrates many peripheral controllers including dual channel UltraDMA-33/66/100 master mode EIDE controller, AC-link interface, LPC interface, USB controller etc. The VT8233 is compatible with PCI-2.2 specification and supports advanced power management.

The **Apollo KT266** chipset provides the optimized performance for the PC systems based on the latest AMD® processors.

This chapter includes the following topics:

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Mainboard Layout	1-4
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Mainboard Specification

CPU

- Support Socket A (Socket-462) for AMD® Athlon™ /Duron™ processor
- Support 600MHz up to 1.4GHz processor

Chipset

- VIA® VT8366 chipset (552 BGA)
  - FSB @200/266MHz
  - AGP 4X and PCI Advanced high performance memory controller
- VIA® VT8233 chipset (376 BGA)
  - High Bandwidth V-link Client controller
  - Integrated Faster Ethernet LPC (Optional CNR card support)
  - Integrated Hardware Sound Blaster/Direct Sound AC97 audio
  - Ultra DMA 33/66/100 master mode PCI EIDE controller
  - ACPI

Clock Generator

- 100/133MHz clocks are supported

Main Memory

- Support six memory banks using three 184-pin DDR DIMMs
- Support a maximum memory size up to 3GB
- Support 2.5v DDR SDRAM DIMM

Slots

- One AGP (Accelerated Graphics Port) or AGP PRO slot
  - AGP specification compliant
  - Support AGP 2.0 1x/2x/4x
- One CNR (Communication Network Riser) slot
- Five 32-bit Master PCI Bus slots
- Supports 3.3V/5V PCI bus Interface

On-Board IDE

- An IDE controller on the VIA® VT8233 chipset provides IDE HDD/CD-ROM with PIO, Bus Master and Ultra DMA 33/66/100 operation modes
- Can connect up to 4 IDE devices

Promise 20265R On-Board (Optional)

- Support IDE RAID 0 or 1

- Can connect a Master and a Slave drive to each IDE RAID connector
- The two connectors support hard disk drives only

Note: *Only the two Master hard disk drives will adopt RAID function.*

USB Interface

- USB 2.0 HC On Board (for **K7T266 Pro-RU** only)
  - Support 4 USB 2.0 ports via external bracket
- USB PC2PC Networking Function
  - Controlled by USB PC2PC Controller
  - Supported by the JUSB2 pin header
- 6 USB Ports (for **K7T266 Pro** & **K7T266 Pro-R**)
  - Controlled by VT8233 Soughbirdge
  - 2 rear ports and 4 ports supported by JUSB2 & JUSB3

Audio

- Chip integrated (2 channel S/W audio)
  - Direct Sound AC97 Audio

On-Board Peripherals

- On-Board Peripherals include:
  - 1 floppy port supports 2 FDD with 360K, 720K, 1.2M, 1.44M and 2.88Mbytes
  - 2 serial ports (COMA + COMB)
  - 1 parallel port supporting SPP/EPP/ECP mode
  - 1 IrDA connector for SIR/ASKIR/HPSIR
  - 1 Audio/Game port

BIOS

- The mainboard BIOS provides “Plug & Play” BIOS which detects the peripheral devices and expansion cards of the board automatically
- The mainboard provides a Desktop Management Interface (DMI) function which records your mainboard specifications

Dimension

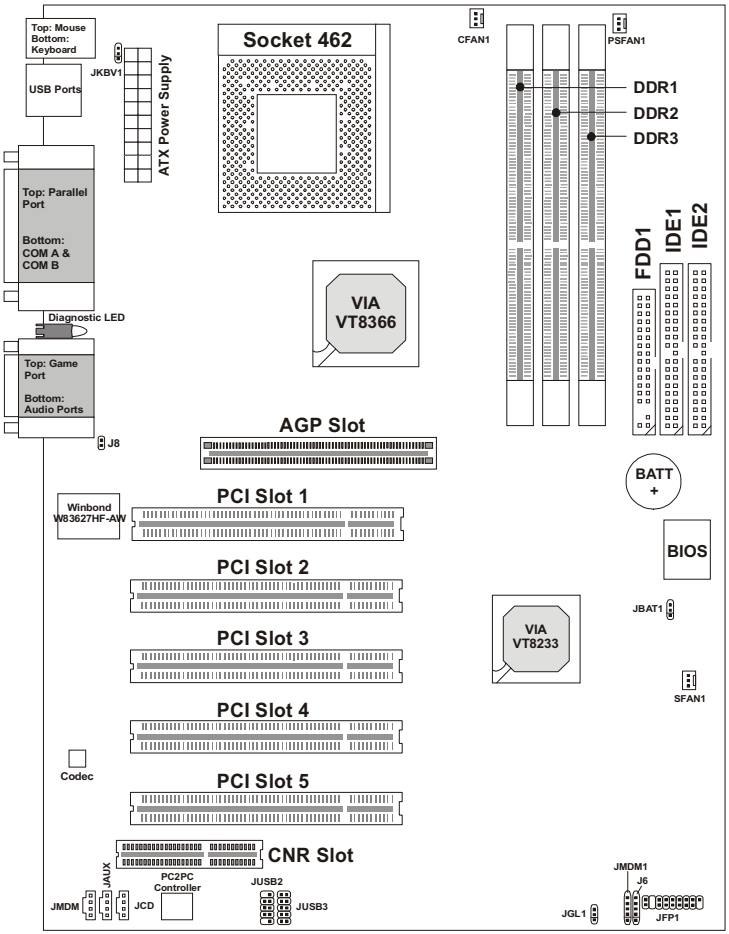
- ATX Form Factor (30.4 cm X 23.5 cm)

Mounting

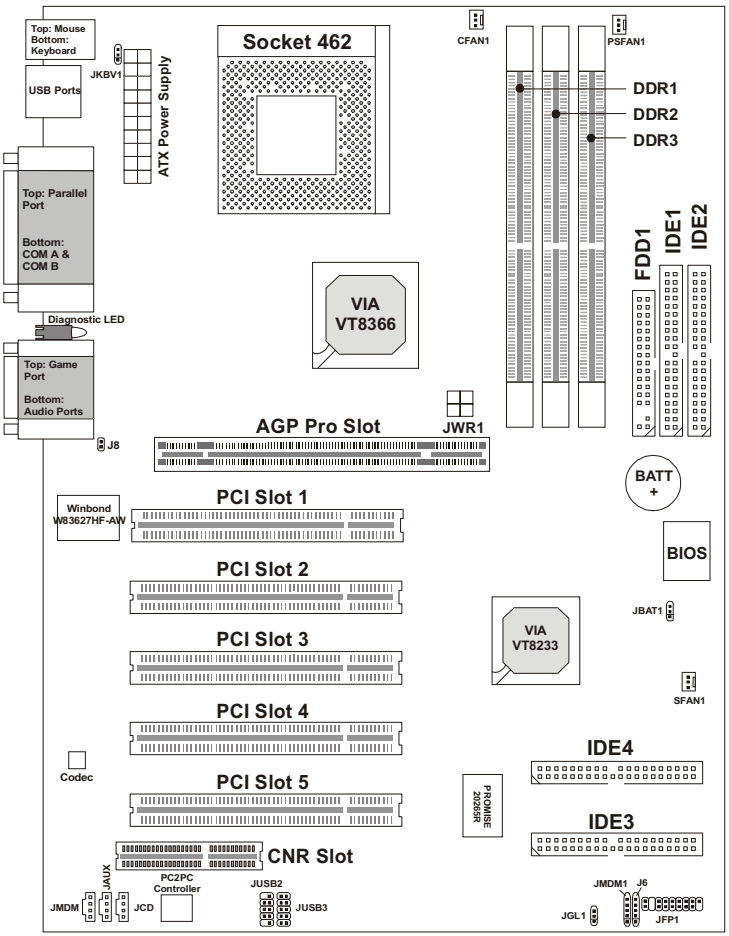
- 6 mounting holes

Mainboard Layout

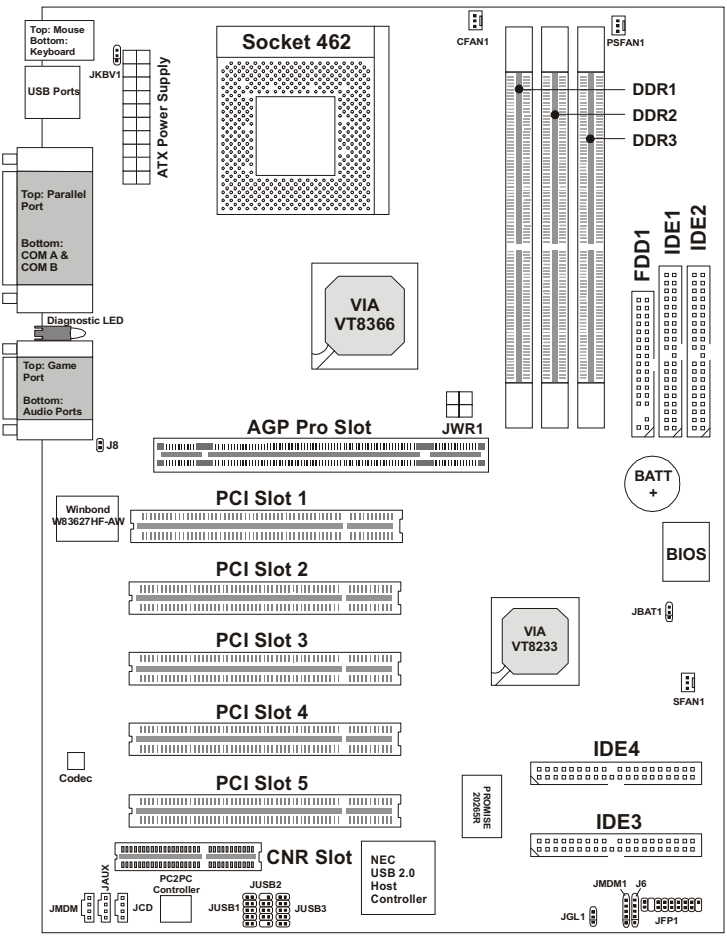
MS-6380 provides three types of models to meet consumers' diverse needs: K7T266 Pro, K7T266 Pro-R and K7T266 Pro-RU.



MS-6380 ATX Mainboard (K7T266 Pro)



MS-6380 ATX Mainboard
(K7T266 Pro-R)



MS-6380 ATX Mainboard
(K7T266 Pro-RU)

Quick Components Guide

Component	Function	Reference
DDR1~3	Installing DDR SDRAM modules	See p. 2-5~2-6
Socket 462	Installing CPU	See p. 2-2~2-4
CFAN1	Connecting to CPUFAN	See p. 2-20
SFAN1	Connecting to SYSTEM FAN	See p. 2-20
PSFAN1	Connecting to Power Supply FAN	See p. 2-20
ATX Power Supply	Installing power supply	See p. 2-7
IDE1& IDE2	Connecting to IDE hard disk drive	See p.2-13
IDE3& IDE4	Connecting to IDE RAID HDD	See p.2-14
FDD1	Connecting to floppy disk drive	See p.2-12
JUSB1~3	Connecting to USB interfaces	See p. 2-22~2-26
PCI Slot 1~5	Installing expansion cards	See p. 2-30
AGP/AGP PRO Slot	Installing AGP (Pro) cards	See p. 2-30
CNR Slot	Installing expansion cards	See p. 2-30
JMDM1	Connecting to modem module	See p. 2-18
JBAT1	Clearing CMOS data	See p. 2-28
JFP1	Connecting to case	See p. 2-15
JGL1	Connecting to power saving LED	See p. 2-17
J6	Connecting to IR module	See p. 2-19
J8	Connecting to chassis intrusion switch	See p. 2-18
JWR1	Connecting to AGP Pro card's power cable	See p. 2-27
JKBV1	Enabling Keyboard wake up function	See p. 2-29

Key Features

- ATX Form Factor
- CPU: Socket A for AMD® Duron™/Athlon™ Processor
- Memory: 3 PC1600/PC2100 DDR DIMMs
- Slot: 1 AGP/AGP PRO slot, 1 CNR slot, 5 PCI slots
- I/O: 2 serial ports. 1 parallel port, 6 USB 1.1 ports, 1 floppy port, 1 IrDA connector, 3 Audio/1 Game port (for **K7T266 Pro** & **K7T266 Pro-R**)
- I/O: 2 serial ports. 1 parallel port, 4 USB 1.1 & 4 USB 2.0 ports, 1 floppy port, 1 IrDA connector, 3 Audio/1 Game port (for **K7T266 Pro-RU**)
- USB Interface: USB 1.1 PC to PC Networking & USB 2.0 HC On-Board (Optional)
- 2 IDE RAID connectors (Optional)
- Fuzzy Logic™ III overclocking utility
- D-LED™ -- 4 LEDs embedded in the mainboard
- PC Alert™ III system hardware monitor
- Audio: 2 Channel S/W audio integrated
- PCI 2.2 LAN Wake up Function
- Modem (External/Internal) Ring Wake up Function

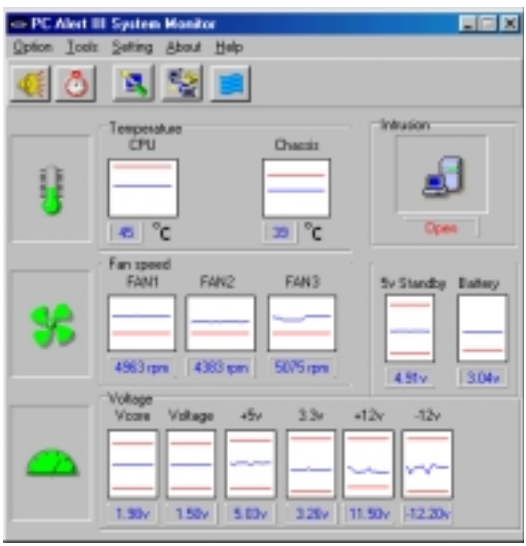
MSI Special Features

PC Alert™ III

The PC Alert™ III is an utility you can find in the CD-ROM disk. The utility is just like your PC doctor that can detect the following PC hardware status during real time operation:

* monitor CPU & system temperatures
* monitor fan speed(s)
* monitor system voltage
* monitor chassis intrusion

If one of the items above is abnormal, the program main screen will be immediately shown on the screen, with the abnormal item highlighted in red. This will continue to be shown,until user disables the warning.



Note: *Items shown on PC Alert III vary depending on your system's status.*

Features:

- Network Management
  - Monitoring & remote control
- Basic System Utilities
  - Scandisk & Defragment to maintain your HDD
- 3D Graphics Design
  - Enables a more friendly user interface
- Sofware Utilities
  - SoftCooler Optimized Cooling

Fuzzy Logic™ III

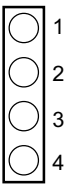
The Fuzzy Logic™ III utility allows users to overclock the CPU FSB (Front Side Bus) frequency in the Windows environment. Select the CPU frequency you prefer and click Go to apply the frequency or click Save allowing the system to run at the specified frequency each time when the system is powered on.

Features:

- Display Current System Status
  - CPU Fan
  - CPU Temp.
  - Vcore
  - Vio
  - Memory Clock
  - CPU Clock
  - AGP Clock
  - PCI Clock
- Adjust CPU FSB Frequency

D-LED™

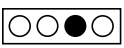
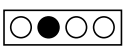
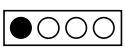
The D-LED™ uses graphic signal display to help users understand their system. Four LEDs embedded in the mainboard provide up to 16 combinations of signals to debug the system. The 4 LEDs can debug all problems that fail the system, such as VGA, RAM or other failures. This special feature is very useful for the overclocking users. These users can use the feature to detect if there are any problems or failures.



Diagnostic LED

● **Red** ○ **Green**

D-LED	Description
1 2 3 4 ●●●●	System Power ON - The D-LED will hang here if the processor is damaged or not installed properly.
○●●●	Early Chipset Initialization
●○●●	Memory Detection Test - Testing onboard memory size. The D-LED will hang if the memory module is damaged or not installed properly.
○○●●	Decompressing BIOS image to RAM for fast booting.
●●○●	Initializing Keyboard Controller.
○●○●	Testing VGA BIOS - This will start writing VGA sign-on message to the screen.

	Processor Initialization - This will show information regarding the processor (like brand name, system bus, etc…)
	Testing RTC (Real Time Clock)
	Initializing Video Interface - This will start detecting CPU clock, checking type of video onboard. Then, detect and initialize the video adapter.
	BIOS Sign On - This will start showing information about logo, processor brand name, etc….
	Testing Base and Extended Memory - Testing base memory from 240K to 640K and extended memory above 1MB using various patterns.
	Assign Resources to all ISA.
	Initializing Hard Drive Controller - This will initialize IDE drive and controller.
	Initializing Floppy Drive Controller - This will initializing Floppy Drive and controller.
	Boot Attempt - This will set low stack and boot via INT 19h.
	Operating System Booting